PHENIX
WEEKLY PLANNING

October 1, 2015

Carter Biggs

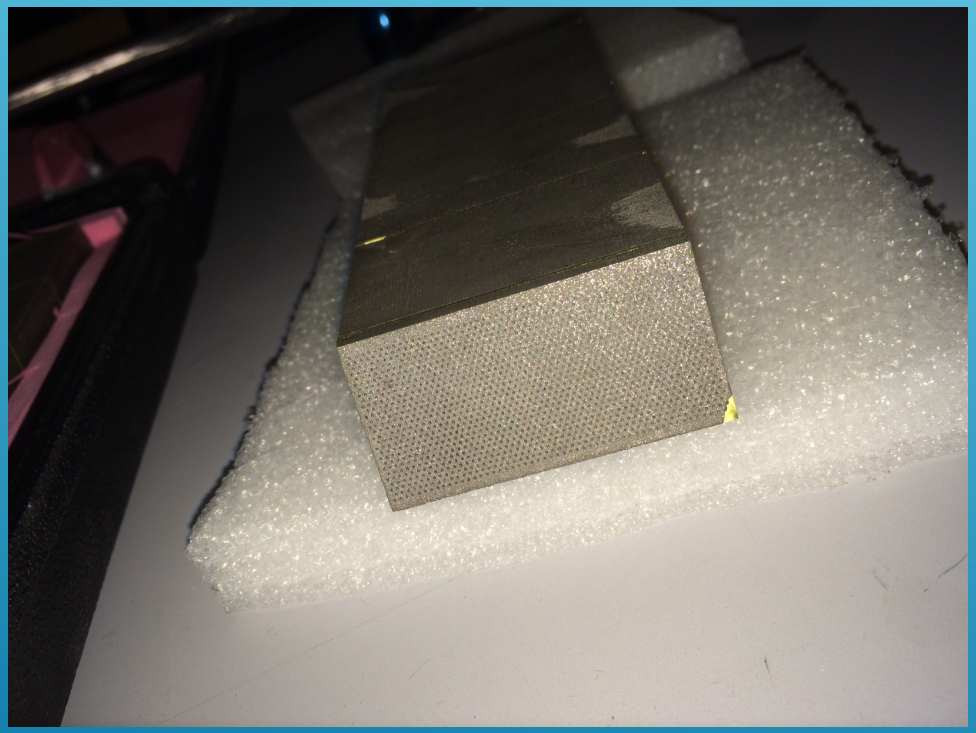
This Week

1. Replace finished MPC North Crystals, Test
2. Set up “Sled” for Re-Install of MPC-ex North
3. Continue work on VTX East
4. Continue to set up 510 Hi-Bay for S-PHENIX Prototype builds
5. Start clean out of Cassone trailers

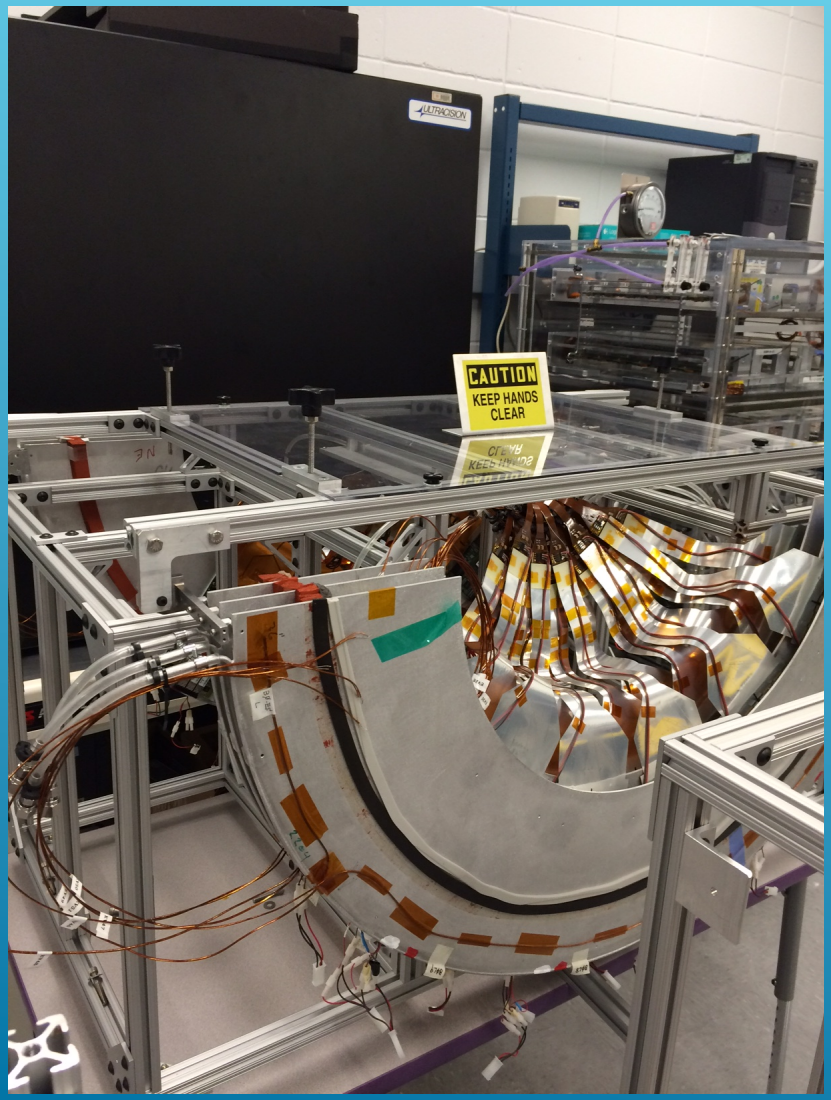
Next Week

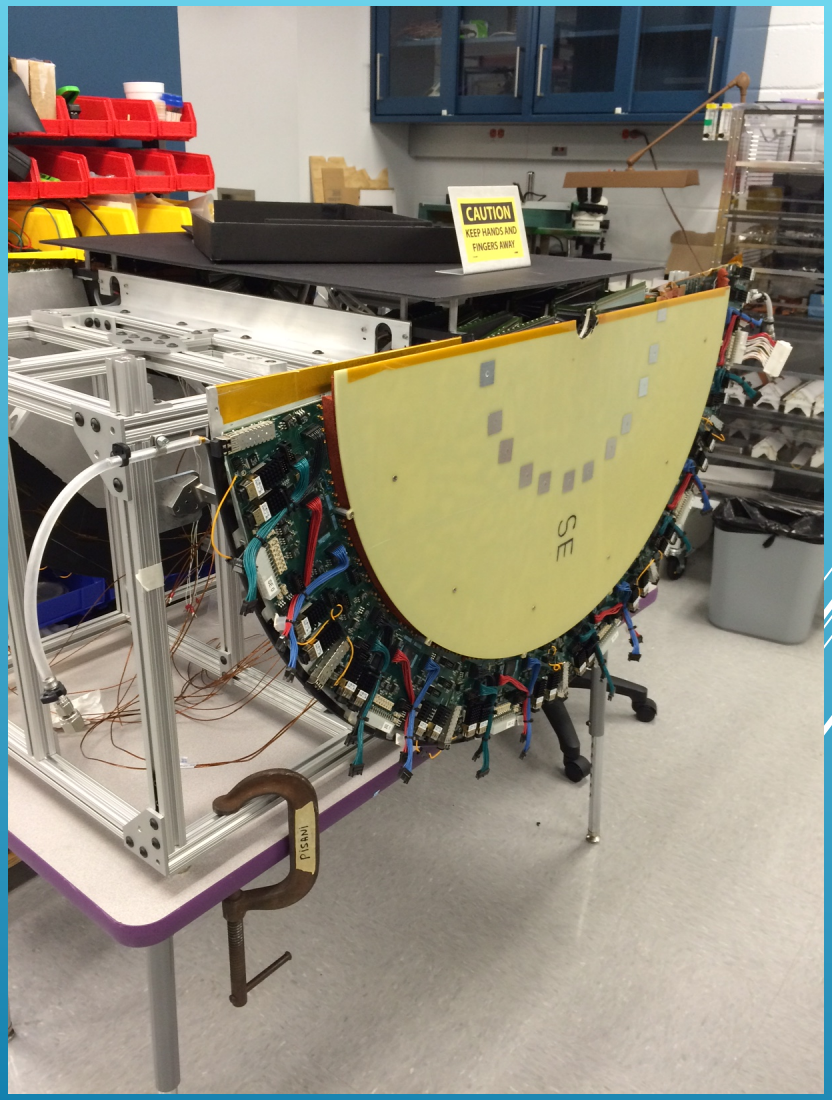
1. Cleaning out the Cassone trailers
2. Continue work on VTX/FVTX West
4. Continue to support S-PHENIX prototypes

EM Cal prototype "Bricks"

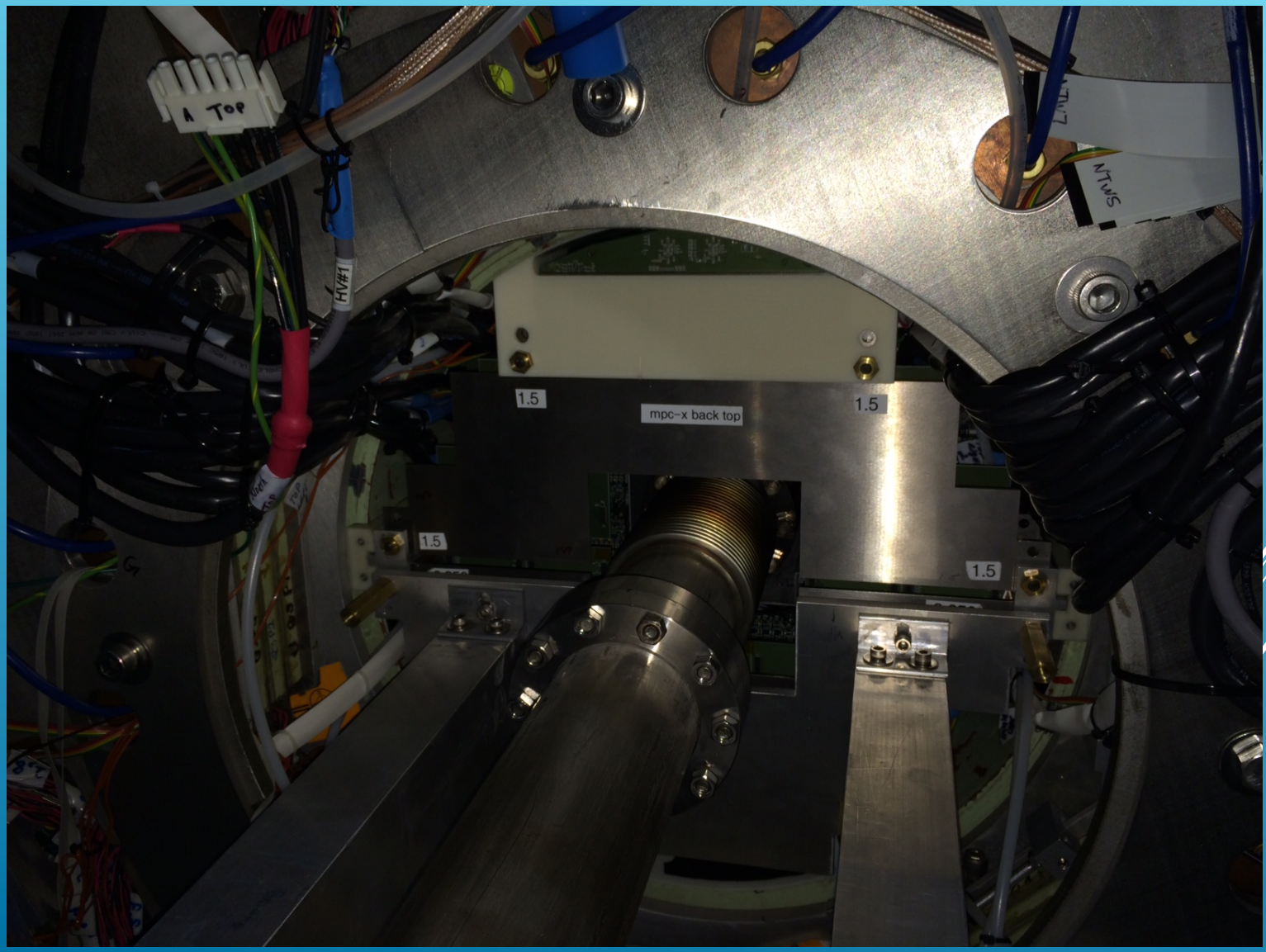


VTX East Work



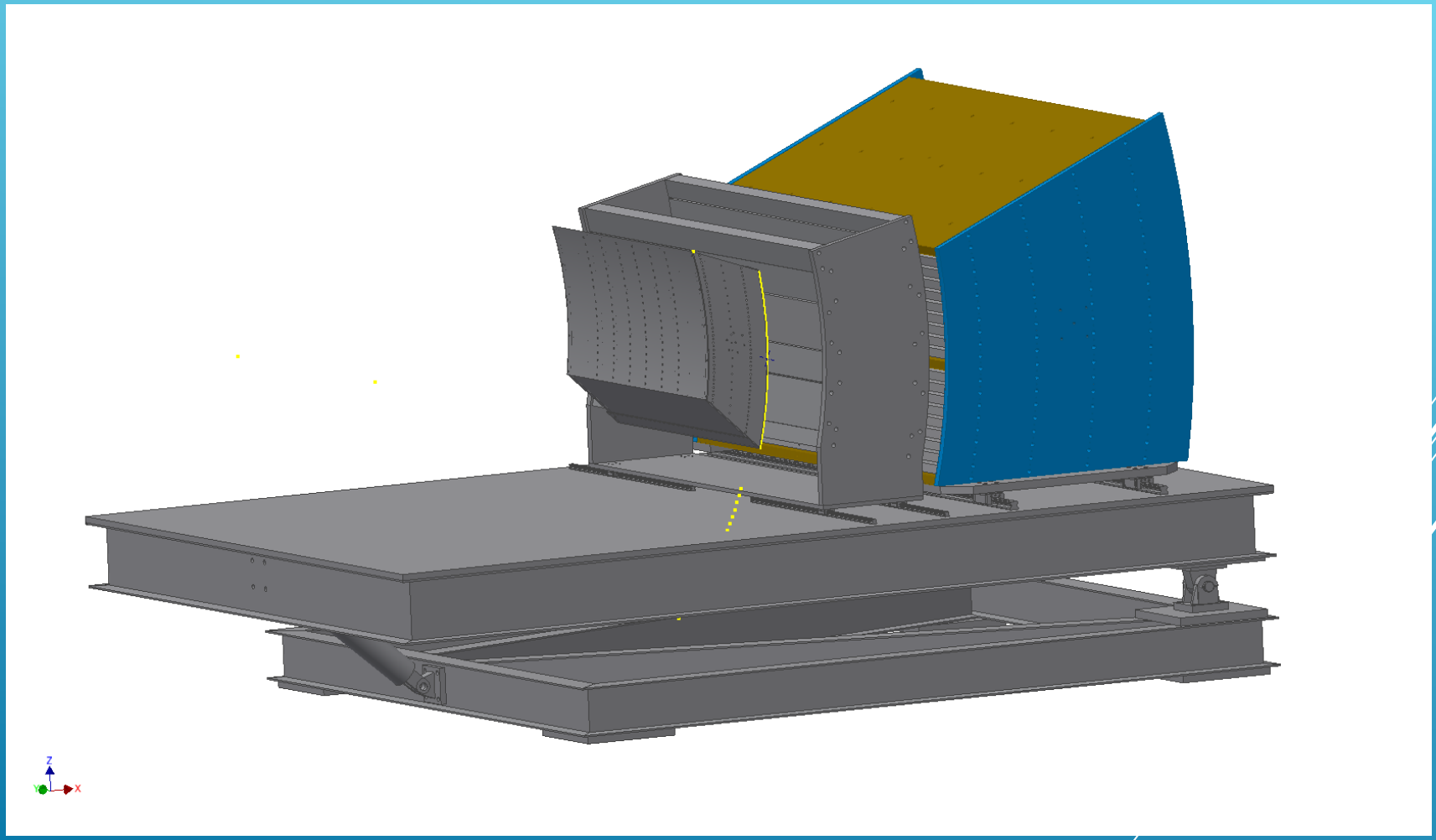


MPC North



Cleaning out the Trailers

sPHENIX H Cal Test Beam Set up



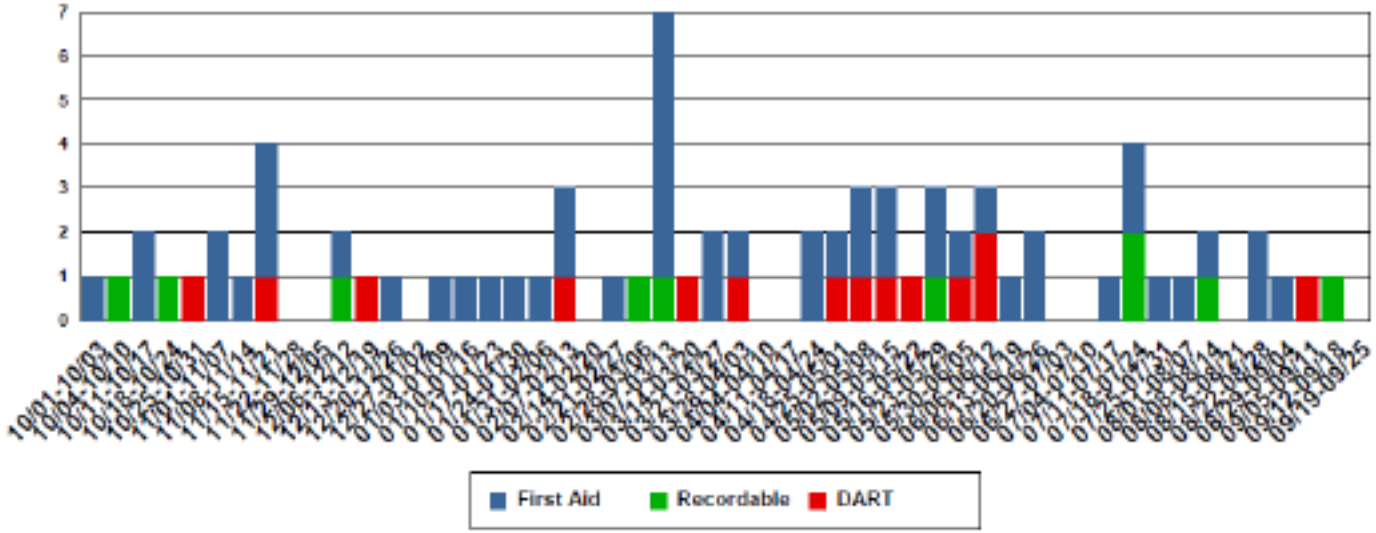
2015 SHUTDOWN SHEDULE

June 19th	End of Run Party
JUNE 22ND	END OF RUN
June 23rd	Roll out Shield Wall
June 25– 30	Remove Shield Wall
June 24 - 29	Pixel Testing on VTX (Chuck, Eric)
July 1	Remove Collars, Move South Magnet south
July 2 – July 6	Disconnect & roll out East Carriage
July 6 – 7	Setup up IR for shut down work
July 6 – 10	De-Cable & remove East VTX/FVTX, move to 510
July 9th	Erect Scaffold between south and central magnets
July 10th	Set up MPC-ex "sled"
July 13 – 16	Remove MPC-ex south, MPC South Crystals
July 14 – 21	De-Cable & remove West VTX/FVTX, move to 510
July 17 – Aug 7	Repairs and upgrades to MPC-ex and MPC south in 510
July 17 – Sept 21	Repairs to East VTX/FVTX in 510
July 17 - Oct 19	Repairs to VTX/FVTX West in 510
July 29	Deliver and set up "Dance Floor" for Summer Sunday
July 31	Start to fold down East Carriage wings
Aug 2	SUMMER SUNDAY @ PHENIX
Aug 14 -30	DC EAST and WEST repairs
Aug 10 – ?	Replace & Troubleshoot MPC and MPC-ex South
Aug. 24 – 28	MuTr South Sta. 1 Repairs

2015 SHUTDOWN SCHEDULE (cont.)

Aug 31 – Sept. 2	Remove South scaffold and move CM south
Sept. 2nd	Erect Scaffold between CM and North magnet
Sept. 3rd	Install MPC-ex "sled" in north
Sept. 3 – Sept. 4	MuTr North Sta. 1 Repairs
Sept. 3 – Sept. 7	Remove MPC-ex North & MPC North crystals
Sept 7 – 24	Repairs to MPC North in 510
Sept 24 – Oct 8	Replace & Troubleshoot MPC North
Oct 12 - 23	Replace MPC-ex North and troubleshoot
Oct 26th	Remove North Scaffold and move CM North
Oct 27 – Nov 6	Re-install and re-cable VTX/FVTX West
Nov 9 – 11	Survey CM, Beam pipe, and VTX West
Nov 12 - 25	Re-Install and re-cable VTX/FVTX East
November	DC Wire Repairs
Dec 1 – 4	Prep IR for Run 16
Dec 4	Fold up "wings" on East Carriage
Dec 7- 9	Move in East Carriage
Dec 10	Fold down "wings" on East Carriage
Dec 11 – 15	Build Shield Wall
Dec 16	Move Shield Wall in
Dec 17 - 30	White, Pink, and Blue Sheeting

Injuries Per Week (FY)
As of 9/25/2015



Injury Status:

FY15 YTD: DART – 14, TRC – 24, First Aid – 51
FY14: DART – 17, TRC – 33, First Aid – 38
FY13: DART – 18, TRC – 39, First Aid – 52

FY15 Injury Listing:
https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLInjuries.aspx

Recent Injuries		
9/12/15	Recordable	An employee slipped on a wet surface and fell onto the back of his head. The employee was transported via ambulance to a local ER where first aid was given. **Update:** Subsequently the employee went back to the ER and was given prescription medication, making this recordable.
9/8/15	DART	An employee injured a shoulder lifting a railing onto a scaffold. At the clinic, the worker was given first aid and sent home for the rest of the day. After medical consultation with an orthopedist, he returned to work on restrictions.

Recent Events		
9/23/15	SC-BNL	After the addition of nanoparticles into a waste can, smoke was detected. A handheld dry chemical extinguisher was used to quickly mitigate the condition. There was no fire and there were no injuries. (Event Link)

Battery Disposal at Brookhaven Lab: Guidance and Changes to Recycling Program

It's important to properly dispose of batteries when they are no longer useful. Here's some helpful guidance from the Environmental Protection Division (EPD) on how to dispose of different types of batteries at Brookhaven Lab and at home.

Know the Battery Type, and What to Do With It

Some batteries contain certain metals or liquids/gels that are considered hazardous by the New York State Department of Environmental Conservation. For these batteries, classified as "universal waste," Brookhaven Lab has stringent requirements for their handling and disposal. They must be managed as directed in the Hazardous Waste Management subject area, Section 8,

Universal Waste Management, in the Standards-Based Management System. These battery types include:

- Nickel metal hydride – e.g., contained in cameras, rechargeable appliances.
- Lithium, Lithium Polymer and Lithium Ion.
- Magnesium.
- Mercury.
- Nickel Cadmium (NiCad).
- Silver Oxide.
- Alkaline batteries manufactured prior to 1995. They contain mercury while newer batteries do not.
- Lead Acid batteries: UPS batteries are accepted by Procurement & Property Management (PPM) for off-site recycling. If not recycled, they should be managed as universal waste. Automotive batteries are accepted for recycling by the Motor Pool.

When disposing universal waste batteries, you must tape over their terminals with masking or electrical tape, or otherwise protect the terminals so they don't make contact with each other. For example, individual batteries may be placed in separate plastic bags. Leaking or damaged hazardous batteries should not be managed as universal waste. They must to be managed as hazardous waste. Please contact your **Environmental Compliance Representative for guidance.**

These rules don't apply to hazardous batteries you have at home. However, they still shouldn't go in the regular trash. Big Box electronics and hardware retailers (Best Buy, Home Depot, Lowes, and others) have drop-off areas where you can bring batteries from home. You can also contact your town's solid waste facility to find out what program they have in place for collecting hazardous batteries. Please don't bring those batteries to the Lab for disposal because they increase our costs, risks, and regulatory burden.

New Approach to Popular Recycling Program

Alkaline and carbon zinc (e.g., "Eveready" and "Heavy-Duty") batteries are considered non-hazardous and are perfectly acceptable for disposal in the regular trash. Brookhaven Lab doesn't have specific rules for how they should be disposed of on site. However, there's been an informal program at the Lab for collecting these batteries for recycling called the "Big Green Box." Though this informal program has been successful, the program does pose some serious risks. A risk of fire is associated with 9-volt batteries if the positive and negative posts of two 9-volts come into contact with each other—or even if these posts are bridged by a small piece of metal (like a paper clip or steel wool). When this happens, current can flow between the batteries causing them to heat up and, potentially, catch fire. **Watch this dramatic video of how one of these fires destroyed a family's home.**

A lack of awareness of the fire risk means that it's common to find many untaped 9-volt batteries in the Big Green Boxes. However, we also find hazardous batteries of higher voltage, as well. Not only do they pose a higher fire risk, they pose a regulatory problem for us as they are required to be managed as Universal Waste, separate from the Big Green Box program.

The Lab cannot afford the cost, the property damage, the operational disruption, the possible harm to our reputation, or the potential for injury these risks present. Therefore, EPD is very motivated to more closely manage this program. However, to be successful, we also need Lab staff to take more responsibility for the use and management of batteries.

At home, you can dispose of non-hazardous batteries in your regular trash. Again, please don't bring these batteries to the Lab for disposal as they also increase our costs, risks and regulatory burden. However, do be mindful of the fire risk discussed here and tape the terminals at home as well. You can't afford a fire any more than the Lab can.

The Next Step for the Big Green Box

Starting soon, the Big Green Box where you place batteries for recycling will be removed unless someone steps forward to take responsibility for managing each box location. That person will receive training to manage the box safely and keep it in compliance. If no one in a specific area steps forward to be responsible for the Big Green Box by the end of August, then that area will forfeit its "Big Green Box." Then, from that time forward, non-hazardous batteries must be disposed of in the trash. This may disappoint some people at the Lab, but we know you appreciate why this change must be made considering the risks.

Be mindful when disposing of batteries, such as 9-volt batteries, at home or anywhere. Taking just a few moments to tape over the battery head can spare you an unfortunate result. Please keep yourselves and your families safe.

C-AD personal who place batteries in a Satellite Area for disposal or recycling must always do the following to protect against overheating of the batteries during transportation:

Department of Transportation (DOT) Rules regarding battery preparation for disposal:

1. **All dry cell batteries >9V must have terminals taped to prevent shorting of the battery**
2. **All Lithium batteries (including metal coin and cylindrical metal cells), no matter what the voltage is, must be taped to prevent shorting of the cells**
3. **Do Not place batteries in the 90 areas unless these rules are followed by the person placing the batteries in the area at the time of placement**

Basis:

Lithium cells are capable of causing higher temperatures even in a discharged state than comparable alkaline and carbon zinc batteries when shorted by touching each other's terminals. Also most lithium batteries contain a flammable electrolyte not found in other dry battery chemistries. All dry batteries > 9 V can produce similar levels of heating when terminals touch during transportation.

From Gail Matson, ALD for ES&H

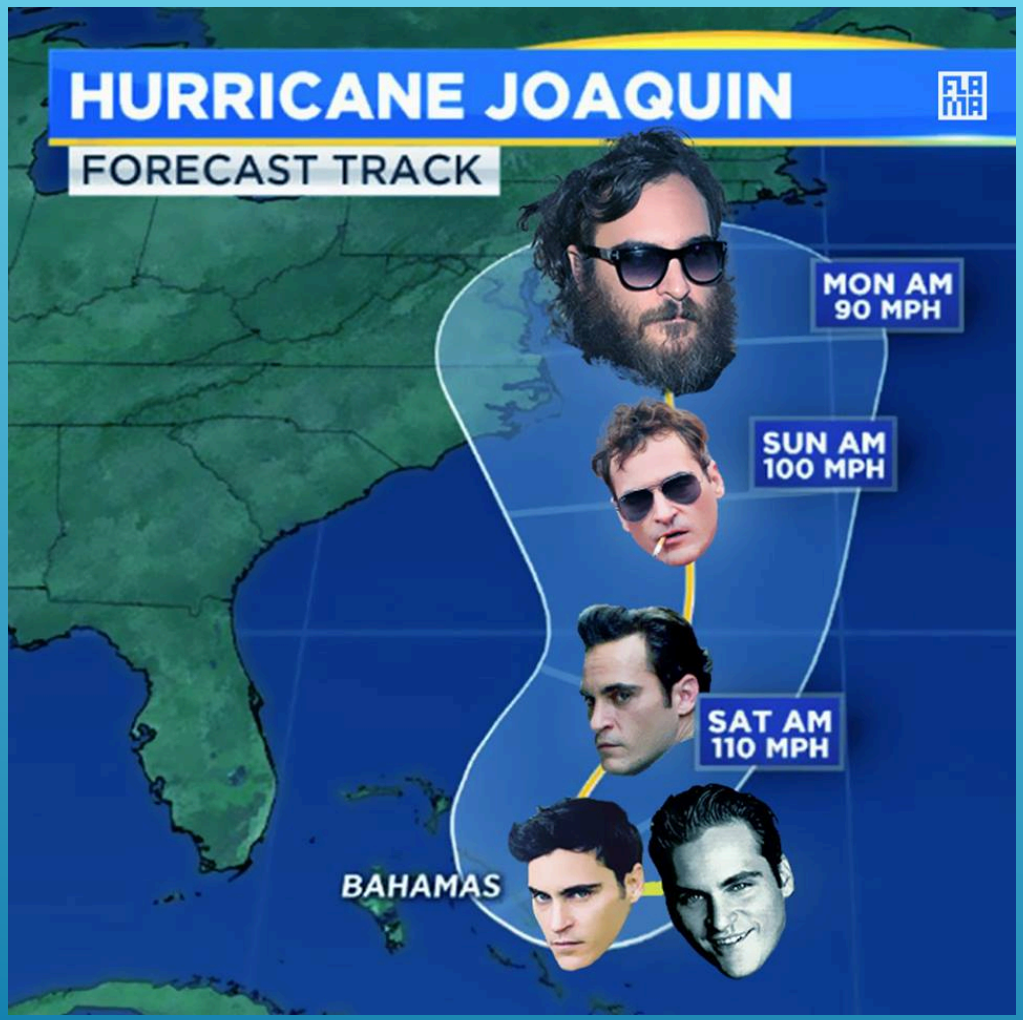
Prior to using electrical equipment, please ensure that it is either Nationally Recognized Testing Laboratory (NRTL)-approved or approved through the Laboratory Electrical Equipment Inspection (EEI) Program. If you are not sure if a piece of equipment has been approved by a NRTL or inspected through the Lab's EEI program, contact your department EEI Inspector or Environmental Safety and Health (ESH) Representative.

The Occupational Safety and Health Administration (OSHA) requires that NRTL-labeled equipment must be acquired whenever labeled equipment is available, even if similar unlabeled equipment can be used. OSHA maintains a current list of NRTLs at this website.

If the equipment is approved by a NRTL, then it would not need a detailed inspection by a Brookhaven Lab EEI inspector. While the EEI program inspects all electrical equipment connected to a source of electrical power, devices connected to electrical sources below 50 volts are generally exempt from detailed review.

A detailed inspection is required by an EEI inspector when specialized equipment is purchased that is not available with an NRTL approval. This is often the case with equipment manufactured outside the U.S. or very specialized equipment manufactured within the U.S. A detailed inspection is also required when equipment is modified for a special purpose. OSHA does allow for approval of specialty off-the-shelf or custom-made equipment. At Brookhaven, this approval is achieved by having a field evaluation of the product by a NRTL or having the equipment inspected by an EEI inspector.

WHERE TO FIND PHENIX ENGINEERING INFO



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm